

REMARKS/ARGUMENTS

Applicant has received and carefully reviewed the final Office Action of the Examiner mailed May 23, 2006. Claims 1-34 remain pending. Claims 1, 31, 32, and 34 have been amended. Support for the amendments is found in the specification, claims, and drawings as originally filed. No new matter has been added. Reconsideration and reexamination are respectfully requested.

Finality of Office Action

Applicant submits that the Office Action mailed May 23, 2006 was improperly made final, and requests the finality be withdrawn. Applicant's previous response, dated April 27, 2006, contained only arguments and no amendments. In response, the Examiner indicates that some of the arguments were persuasive while others were not. The Office Action contains new grounds of rejection, including a new rejection of claims 31 and 32 based on newly cited prior art. In the Conclusion on page 15, the Examiner states that Applicant's amendments necessitated the new grounds of rejection, thus the Office Action is made final. Applicant submits that because the prior response contained no amendments, the inclusion of new grounds of rejection and specifically the use of a new reference in the current final Office Action is improper. Applicant has essentially been given no opportunity to respond to the new rejection using a newly cited reference.

Additionally, the anticipation rejections of claims 1, 2, and 4 over Weiss et al., claims 1-3 and 8 over Persons, claims 1-3 and 8 over Min, and claims 1 and 5 over Bucher have been repeated, but the Examiner has not addressed Applicant's arguments regarding these rejections, presented in the response filed April 27, 2006. Applicant respectfully requests the finality of the Office Action mailed May 23, 2006 be withdrawn, this response be entered and fully considered, and a further Office Action addressing Applicant's arguments or notice of Allowance be issued.

Rejections under 35 U.S.C. § 102(b)

Claims 1-3 and 8 remain rejected under 35 U.S.C. §102(b) as anticipated by Hajny et al. (U.S. Patent No. 5,295,562). Applicant respectfully traverses the rejection. Hajny et al. appear to teach an air damper for use in duct work of an HVAC system (see column 1, lines 37-46), and do not appear to disclose an actuator configured to actuate a water valve in the manner recited in independent claim 1.

In response to Applicant's previous arguments, the Examiner asserts that the recitation of a biasing mechanism that is structured to close the valve stem within a time period that would cause water hammer in the fluid system, or a brake for increasing the time period that the biasing mechanism closes the valve stem by an amount that eliminates water hammer in the fluid system is merely a recitation of intended use. The Examiner then asserts that the Hajny et al. device has the same structure as claimed and it is clear that Hajny et al.'s actuator would be able to perform the same function. The Examiner asserts that if the prior art structure is capable of performing the intended use, then it meets the claim. The Examiner has not provided authority for this statement, but it appears the Examiner is referring to MPEP 2111.02 II. PREAMBLE STATEMENTS RECITING PRUPOSE OR INTENDED USE, which states:

If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997) (anticipation rejection affirmed based on Board's factual finding that the reference dispenser (a spout disclosed as useful for purposes such as dispensing oil from an oil can) would be capable of dispensing popcorn in the manner set forth in appellant's claim 1 (a dispensing top for dispensing popcorn in a specified manner)) and cases cited therein.

The language in question in claim 1 is not in the preamble, but rather is in the body of the claim and describes the structure of the actuator. Further, as stated in the MPEP section above, a rejection based on intended use was affirmed when factual findings showed that a reference device would be capable of performing a function recited in a claim preamble. The facts of the cited case differ from the instant facts. The Examiner has provided no factual findings or reasoned statements to show that the air vent damper braking system of Hajny et al. has a

structure that would be capable of eliminating water hammer in a water valve, as is recited in claim 1.

Applicants submit that the above claim language is not merely intended use but rather provides a particular structure to the claimed actuator. The claim recites a first element (biasing mechanism) that has a particular structure allowing it to perform a particular function (close the valve stem) in a particular manner (within a time period that would cause water hammer in the fluid system), and a second element (brake) with a particular structure that allows it to perform a particular function (increasing the time period that the biasing mechanism closes the valve stem) in a particular manner (by an amount that eliminates water hammer in the fluid system). The structures of the biasing mechanism and brake are expressed in terms of their function. There is no indication that the spring assembly 31 of Hajny et al. has a structure that would enable it to close a valve stem within a time period that would cause water hammer in a fluid system. In fact, water hammer is not a concern in the air duct system of Hajny et al. The brake in claim 1 is described as being structured to increase the time period that the biasing mechanism closes the valve stem by an amount that eliminates water hammer in the fluid system. Like the biasing mechanism, the structure of the brake is expressed in terms of its function (the brake has structure that increases the time period that the biasing mechanism closes the valve stem by an amount that eliminates water hammer in the fluid system). There is no indication in Hajny et al. that their centrifugal brake has a structure that would allow it to perform the claimed function.

In response to Applicant's arguments, the Examiner acknowledges that Hajny et al. does not state the actuator performs the claimed function. The Examiner then asserts that it is clear that Hajny et al.'s actuator would be able to perform the same function because Hajny et al.'s actuator has the same structure. However, the Examiner has not indicated where in Hajny et al. a teaching or suggestion is found that their actuator can perform the recited functions. In the absence of such a teaching or suggestion, Hajny et al. cannot be seen to teach each and every element of independent claim 1, as is required for anticipation.

It appears the Examiner may be interpreting the structure plus function language in the claims as being inherent in the device of Hajny et al. MPEP 2112 IV. states:

"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

(Emphasis added). Applicant submits that the claimed elements for eliminating water hammer do not appear to be necessarily present in the air damper system of Hajny et al., and there is no motivation for one of ordinary skill in the art to modify the air damper system of Hajny et al. to include elements for eliminating water hammer.

The following arguments were presented in Applicant's response filed April 27, 2006, but have not been addressed by the Examiner. If this rejection is maintained, Applicant respectfully requests the Examiner provide a complete response to the following arguments.

The Examiner appears to be suggesting that because the structure of the actuator is claimed using functional language, the functional language is not entitled to any patentable weight. This is simply incorrect. With respect to functional language, MPEP § 2172.05(g) states:

2173.05(g) Functional Limitations [R-3]

A functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971).

A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation

is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step.

(Emphasis Added). More particularly, *In re Swinehart* states:

We take the characterization "functional", as used by the Patent Office and argued by the parties, to indicate nothing more than the fact that an attempt is being made to define something (in this case, a composition) by what it *does* rather than by what it *is* (as evidenced by specific structure or material, for example). In our view, there is nothing intrinsically wrong with the use of such a technique in drafting patent claims. Indeed we have even recognized in the past the practical necessity for the use of functional language.

(Emphasis Added) (*In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971)). As can be seen, the use of functional language is proper (and in some cases recognized as necessary), and such limitations must be evaluated and considered just like any other limitation of the claim. Moreover, and in the present case, the language the "the biasing mechanism is structured to close the valve stem within a time period that would cause water hammer in the fluid system," and "a brake for increasing the time period that the biasing mechanism closes the valve stem by an amount that eliminates water hammer in the fluid system" must be evaluated and considered for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used.

The Examiner also asserts that because Hajny et al. disclose, in the background section, "process control systems frequently use valves which may be adjusted to control the flow of fluids within a conductor system such as a pipeline," that Hajny et al.'s actuator would be able to control a water valve. As stated above, Hajny et al. do not appear to teach their actuator as being capable of performing the functions recited in independent claim 1. The entire disclosure of Hajny et al. appears to be directed to a brake system for an air duct and valve system, thus, at best, Hajny et al. is silent with regard to whether their actuator would be capable of performing the claimed functions. Further, because Hajny et al. appear to be directed to an air valve system, there is no reasonable expectation of success in using their actuator and valve system with water

valves.

Clearly, Hajny et al. do not disclose or suggest an actuator that has a biasing mechanism that is "structured to close a valve stem within a time period that would cause water hammer in the fluid system". Likewise, Hajny et al. do not disclose or suggest "a brake for increasing the time period that the biasing mechanism closes the valve stem *by an amount that eliminates water hammer in the fluid system*". Instead, Hajny et al. appear to disclose an air damper for use in an air duct of an HVAC system. As noted above, water hammer is not of a concern in an air duct system, and is thus not related to a system in which water hammer could occur.

MPEP 2131 states that, in order to anticipate a claim, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)." Applicant submits that Hajny et al. do not appear to teach each and every element as recited in independent claim 1 or the claims dependent thereon. In view of the foregoing, Hajny et al. clearly do not teach an actuator having each and every element as recited in the rejected claims. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 1, 2 and 4 remain rejected under 35 U.S.C. §102(b) as anticipated by Weiss et al. (U.S. Patent No. 6,097,123). This same rejection was made in the previous Office Action, and Applicant provided arguments traversing the rejection in the previous response filed April 27, 2006, on page 13, lines 8-18. The Examiner has not addressed Applicant's arguments in the current rejection. If this rejection is maintained, Applicant respectfully requests the Examiner provide a complete response to the following arguments, which are copied from the previous response.

Applicant respectfully traverses this rejection. Like Hajny et al., Weiss et al. do not appear to teach or suggest a biasing mechanism that is structured to close the valve stem within a time period that would cause water hammer in the fluid system, and a brake for increasing the time period that the biasing mechanism closes the valve stem by an amount that eliminates water hammer in the fluid system. As discussed above, the elements of independent claim 1 are not merely intended use, but rather impart structural requirements for performing certain functions.

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Weiss et al. do not appear to teach or suggest the claimed structural elements. For these and other reasons, independent claim 1, and the claims dependent thereon, are believed to be clearly patentable over Weiss et al. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 1-3 and 8 are rejected under 35 U.S.C. §102(b) as being anticipated by Persons (U.S. Patent No. 2,052,987). This same rejection was made in the previous Office Action, and Applicant provided arguments traversing the rejection in the previous response filed April 27, 2006, on page 13, line 19 through page 14, line 3. The Examiner has not addressed Applicant's arguments in the current rejection. If this rejection is maintained, Applicant respectfully requests the Examiner provide a complete response to the following arguments, which are copied from the previous response.

Applicant respectfully traverses this rejection. Persons appears to describe an electric valve control that is configured to prevent a valve from rebounding when closed. Applicant notes that preventing rebound of a valve upon closing is not equivalent to preventing water hammer in a fluid system. These are distinct problems. Persons do not appear to disclose a biasing mechanism that is structured to close the valve stem within a time period that would cause water hammer in the fluid system, and a brake for increasing the time period that the biasing mechanism closes the valve stem by an amount that eliminates water hammer in the fluid system. As discussed above, the elements of independent claim 1 are not merely intended use, but impart structural requirements for performing certain functions. Persons does not appear to teach or suggest the claimed structural elements. For these and other reasons, independent claim 1, and the claims dependent therefrom, are believed to be clearly patentable over Persons. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 1-3 and 8 are rejected under 35 U.S.C. § 102(e) as being anticipated by Min (US 2005/0092950). The same rejection with respect to claims 1-3 and 8 was made in the previous Office Action, and Applicant provided arguments traversing the rejection in the previous response filed April 27, 2006, on page 14, lines 4-15. The Examiner has not addressed Applicant's arguments in the current rejection. If this rejection is maintained, Applicant

respectfully requests the Examiner provide a complete response to the following arguments, which are copied from the previous response.

The Examiner asserts that Min discloses a motor brake structure for opening and closing a valve structure with the actuator assembly having a motor, a biasing mechanism for driving the valve stem in a direction opposite to the motor driving direction, and a brake that increases the time required for the closing of the valve by the biasing mechanism. Applicants respectfully traverse the rejection. As discussed above, the elements of the independent claims are not merely intended use, but impart structural requirements for performing certain functions. Min does not appear to teach such structural elements.

Regarding independent claim 1, Min does not appear to disclose a biasing mechanism that is structured to close a valve stem within a time period that would cause water hammer in the fluid system, and a brake for increasing the time period that the biasing mechanism closes the valve stem by an amount that eliminates water hammer in the fluid system.

Claims 1 and 5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bucher (US 6,688,438). This same rejection was made in the previous Office Action, and Applicant provided arguments traversing the rejection in the previous response filed April 27, 2006, on page 16, lines 5-19. The Examiner has not addressed Applicant's arguments in the current rejection. If this rejection is maintained, Applicant respectfully requests the Examiner provide a complete response to the following arguments, which are copied from the previous response.

The Examiner asserts that Bucher teaches an actuator for an electric motor having a motor that operates a valve stem, a biasing mechanism (resetting spring) that closes the valve stem in a rapid movement and a brake in conjunction with a gearing 4 and transmission element 5 that slows the speed of the return of the valve element. Applicant respectfully traverses the rejection.

As discussed above, the elements of the independent claims are not merely intended use, but impart structural requirements for performing certain functions. Bucher does not appear to teach such structural elements. Regarding independent claim 1, Bucher does not appear to disclose a biasing mechanism that is structured to close a valve stem within a time period that

would cause water hammer in the fluid system, and a brake for increasing the time period that the biasing mechanism closes the valve stem by an amount that eliminates water hammer in the fluid system. Bucher thus does not appear to teach each and every element of independent claim 1 or the claims dependent thereon. Reconsideration and withdrawal of the rejection is respectfully requested.

Rejections under 35 U.S.C. § 103(a)

Claims 9-17, 33, and 34 are rejected as being unpatentable over Hajny et al. The Examiner acknowledges that Hajny et al. do not disclose a brake that is configured to limit the rotational velocity of the output shaft of the motor to less than 1000 RPMs, as recited in independent claim 9. The Examiner asserts that Hajny et al. teach a brake that can be adjusted in many ways to alter the braking effect or to change the rotational velocity required to initiate braking, and that this changing of the braking changes the threshold rotation and limits the rotation of the output shaft of the motor to any desired value. The Examiner then asserts that a skilled artisan, upon seeing Hajny et al.'s device would be able to adjust the rotational velocity of the output shaft to less than 1000 RPMs, since choosing such a range is an obvious design consideration to promote a longer service life of the actuator components. Applicants submit that the fact that a reference would be able to be modified does not supply the appropriate motivation to make such a modification. MPEP 2143.01 III states:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)... Although a prior art device 'may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so.' 916 F.2d at 682, 16 USPQ2d at 1432.).

Applicant submits that there is no indication or suggestion in Hajny et al. that limiting the rotational velocity of the output shaft to less than 1000 RPMs is desirable or would promote a longer service life of the actuator components. Also, there is no indication or suggestion in Hajny et al. that making such a modification to the air damper system would reduce water

hammer. For these and other reasons, independent claim 9 and the claims dependent thereon are believed to be clearly patentable over Hajny et al. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 33 and 34 depend from independent claim 1. For at least the reasons set forth above, Hajny et al. do not appear to teach the basic elements of the independent claim. Claim 33 further recites that the brake increases the time period that the biasing mechanism closes the valve stem to 4 seconds or more. Claim 34 further recites the brake is structured to limit a rotational velocity of the motor only after the rotational velocity of the motor exceeds a threshold speed, the threshold speed being 900 RPMs or less. The Examiner acknowledges that Hajny et al. fail to teach these claim elements, but asserts that making such modifications would have been a matter of design consideration to promote a longer service life of the valve components. Applicant submits that such an extended time period recited in claim 33 would be desirable to reduce or eliminate water hammer in a fluid system, but would appear to be very long for an air damper application. There is no indication or suggestion in Hajny et al. that adjusting the brake in the air damper system of Hajny et al. to achieve the time period recited in claim 33 or the rotational velocity of the motor as recited in claim 34 would be a desirable change or that such modifications would result in a longer service life of the valve components, or reduce water hammer.

Claims 9-25, 27-30, and 33 are rejected as being unpatentable over Min. Applicants respectfully traverse the rejection. Regarding independent claim 9, the Examiner asserts that Min teaches the rotational velocity of the motor shaft is limited by the brake and the brake can be altered to adjust the rotation speed of the motor, and that making such an adjustment would have been obvious to promote a longer service life of the actuator components. As stated above, MPEP 2143.01 III states that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. Applicant submits that there is no motivation or suggestion in Min to modify the brake to have a configuration in which it limits the rotational velocity of the output shaft of the motor to less than 1000 RPMs, as is recited in claim 9. Additionally, there is no indication or

suggestion that making such a modification would result in a longer service life of the actuator components, or reduce water hammer.

Independent claim 21 recites, in part, an actuator assembly comprising a damping mechanism configured to limit a speed of the valve when the actuator assembly is moving the valve from the open position to the closed position such that the valve moves from the open position to the closed position in 4 seconds or more. Dependent claim 33 recites a similar element. Independent claim 27 recites, in part, a damping mechanism for limiting rotational velocity of the motor when the one or more springs are driving the gear assembly to the closed position, wherein the damping mechanism is configured to limit the rotational velocity of the motor only after the rotational velocity of the motor exceeds a threshold speed, wherein the threshold speed is 1000 RPMs or less. The Examiner acknowledges that Min fails to disclose such elements. As with claim 9, the Examiner asserts that it would have been obvious to alter the brake of Min to promote a longer service life of the actuator components. There is no indication or suggestion in Min that adjusting the brake in the system of Min to achieve the time period recited in claims 21 and 33 or the rotational velocity of the motor as recited in claim 27 would be a desirable change or that such modifications would result in a longer service life of the valve components, or reduce water hammer.

Independent claim 29 recites a method for reducing water hammer caused by operation of a valve involving, in part, the specific method step of moving the valve from the open position to the closed position in 4 seconds or more. The Examiner acknowledges that Min fails to disclose an element that performs the claimed method step. As stated above, MPEP 2143.01 III specifically states that the mere possibility that one could alter the device of Min to achieve the claimed method does not provide proper motivation for one to actually make such a change. Further, as stated above, there is no indication or suggestion in Min that adjusting the brake in the system of Min to achieve the time period recited in claim 29 would be a desirable change or that such modification would result in a longer service life of the valve components, or reduce water hammer. Thus, for at least these reasons, independent claim 29 is believed to be clearly patentable over Min. For similar and other reasons, dependent claim 30 is also believed to be

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clearly patentable over Min. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 6 and 7 are rejected under 35 U.S.C. §103(a) as unpatentable over Hajny et al. in view of Pasch et al. This same rejection was made in the previous Office Action, and Applicant provided arguments traversing the rejection in the previous response filed April 27, 2006, on page 16, last paragraph. The Examiner has not addressed Applicant's arguments in the current rejection. If this rejection is maintained, Applicant respectfully requests the Examiner provide a complete response to the following arguments, which are copied from the previous response.

Applicant respectfully traverses this rejection. As detailed above, independent claim 1, from which claims 6 and 7 depend, is distinguished from Hajny et al., and Pasch et al. does not appear to teach what Hajny et al. lack. Thus, for these and other reasons, dependent claims 6 and 7 are believed to be clearly patentable over Hajny et al. in view of Pasch et al.

Claim 26 is rejected under 35 U.S.C. §103(a) as unpatentable over Min in view of Pasch et al.. This same rejection was made in the previous Office Action, and Applicant provided arguments traversing the rejection in the previous response filed April 27, 2006, on page 17, lines 1-5. The Examiner has not addressed Applicant's arguments in the current rejection. If this rejection is maintained, Applicant respectfully requests the Examiner provide a complete response to the following arguments, which are copied from the previous response.

Applicant respectfully traverses this rejection. As detailed above, independent claim 21, from which claim 26 depends, is distinguished from Min, and Pasch et al. does not appear to teach what Min lacks. Thus, for these and other reasons, dependent claim 26 is believed to be patentable over Min in view of Pasch et al.

Claims 31 and 32 are rejected under 35 U.S.C. §103(a) as unpatentable over Min. This same rejection was made in the previous Office Action, and Applicant provided arguments traversing the rejection in the previous response filed April 27, 2006, on page 17, line 6 through page 18, line 20. The Examiner has not addressed Applicant's arguments in the current rejection. If this rejection is maintained, Applicant respectfully requests the Examiner provide a complete response to the following arguments, which are copied from the previous response.

The Examiner asserts that Min discloses the structure of a motor assembly having a motor housing with an inside surface acted upon by a brake in order to slow the return speed of a biasing mechanism. The Examiner acknowledges that Min fails to teach replacing an old motor without a brake with a motor having a brake, but asserts that it would have been obvious to one of ordinary skill in the art to do so in order to better control the return speed of the valve and to prevent rebounding of the valve closure. Applicant respectfully traverses this rejection.

Claim 31 recites:

31. (Previously Presented) A method of reducing water hammer in a fluid system caused by a previously installed water valve assembly that includes a valve and an actuator assembly, the actuator assembly including a first motor structured to move the valve from a first position to a second position, and a return mechanism that is configured to return the valve to the first position at a return speed; the method comprising steps of:
removing the actuator assembly; and
installing a replacement actuator assembly that includes a second motor
that includes a motor housing having an inside surface and a brake disposed in the motor housing, the brake being configured to engage at least part of the inside surface of the motor housing to slow the return speed of the second motor such water hammer is eliminated in the fluid system.

(Emphasis Added). As can be seen, claim 31 recites installing a replacement actuator assembly that includes a second motor with a brake, the brake being configured to engage at least part of the inside surface of the motor housing to slow the return speed of the second motor such water hammer is eliminated in the fluid system. Independent claim 32 also recites a method of reducing water hammer in a fluid system and includes the specific method steps of removing a first motor and installing a second motor that includes a brake configured to slow a return speed of the second motor.

Min does not appear to teach anything regarding replacing a motor. The Examiner asserts that it would have been obvious to replace a motor without a brake with a motor having a brake. This statement is not understood in view of the fact that the Examiner previously characterized Min as teaching a motor assembly having a brake. As Min already appears to teach an assembly including a motor and brake, the Examiner's statement regarding replacing a

motor without a brake with respect to Min is not understood. If this rejection is maintained, Applicant respectfully requests the Examiner provide a more detailed explanation of the rejection.

Further, the Examiner's assertion that one would make the above modification to Min in order to better control the return speed of the valve and to prevent rebounding of the valve closure is not understood in light of the teachings of Min. Min do not appear to teach or suggest rebounding of the valve closure as a problem to be solved. In addition, and as noted above, preventing rebound of a valve upon closing is not equivalent to preventing water hammer in a fluid system. These are distinct problems. As no other prior art is being relied on for the rejection, it appears the Examiner has relied on Applicant's specification for the motivation for modifying the system of Min, which is improper. Min does not appear to teach or suggest each and every method step recited in independent method claims 31 and 32. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 31 and 32 are rejected as being unpatentable over Schreiner, Jr. et al. (US 6,073,907) in view of Min. The Examiner asserts that Schreiner, Jr. et al. discloses a method for replacing a valve actuator system by removing either the entire actuator or removing a casing to obtain access to the motor. The Examiner acknowledges that Schreiner, Jr. et al. fails to disclose using a motor having a brake to replace the motor in the housing, but asserts that it would have been obvious to one of ordinary skill in the art to use the motor with a brake as taught by min in the removable and interchangeable valve actuator system of Schreiner, Jr. et al. in order to prevent the valve components from being damaged. Applicants respectfully traverse the rejection.

As stated by the Examiner, while Schreiner, Jr. et al. teach a motor in their system, they do not teach a brake in the valve actuator system. Applicant submits that there is no motivation for one of ordinary skill in the art to replace the motor without a brake as taught by Schreiner, Jr. et al. with a motor having a brake. Schreiner, Jr. et al. teach:

the biasing force of spring 276 functions to return drive gear 252 to its position of FIG. 20 in which valve member 80 is in its open position of FIG. 9. Spring 274

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engages the facing surface of rib 142 as drive gear 252 approaches its position of FIG. 20 to gradually slow movement of drive gear 252 as valve member 80 approaches its fully open position. Drive gear stop arm 266 engages a stop surface 279 provided on adaptor plate 108 to provide a positive stop for drive gear 252 and to maintain drive gear 252 in a predetermined position to provide a constant predetermined open position for valve member 80.

(Emphasis added; see column 14, lines 41-52). It would appear the valve system of Schreiner, Jr. et al. utilizes a spring and thus operates without the need for a brake. Further, it is unclear how adding a motor with a brake would prevent the valve components from being damaged, as asserted by the Examiner. The spring and drive gear stop arm disclosed by Schreiner, Jr. et al. would appear to provide the desired slowing and stopping action of the valve system to avoid damage to the valve system. Thus, Applicants submit that there is no motivation for one of ordinary skill in the art to modify the valve system of Schreiner, Jr. et al. to include elements of Min. Reconsideration and withdrawal of the rejection are respectfully requested.

Reconsideration and reexamination are respectfully requested. It is submitted that, in light of the above remarks, all pending claims are now in condition for allowance. If a telephone interview would be of assistance, please contact the undersigned attorney at 612-359-9348.

Respectfully submitted,

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